4.7 HAZARDS AND HAZARDOUS MATERIALS

This section describes the current and past usage of hazardous materials at the project site and evaluates the project's potential to create a hazardous condition at the site. This section is based on the results of a Phase I Environmental Site Assessment (Phase I) and Limited Phase II Site Assessment (Phase II) prepared by Kleinfelder, Inc. in 1990. A copy of these reports are on file at the California Department of Corrections, 501 J Street, Suite 304, Sacramento, California. The reports were originally prepared for CDC for a previously proposed project located on the project site. The boundaries of the study area for these reports directly corresponds to the boundaries of the project evaluated in this Draft EIR. As such, the results of these reports have been carried forward in the following analysis. The Phase I and Phase II reports were peer-reviewed by Hallenbeck/Allwest in 2004 to confirm that site conditions have not substantially changed between 1990 and 2004. The peer-review included field reconnaissance and review of the reports in light of the existing regulatory environment. The results of the peer-review indicated Phase I and II accurately describe conditions at the site and that site conditions have not substantially changed over the years.

4.7.1 EXISTING CONDITIONS

Based on the results of the Phase I and Phase II reports, the project site is not located within ¼-mile of an existing or proposed school, nor is the site within an airport land use plan or within 2 miles of a public or private airport. The U.S. EPA's Envirofacts website database was searched to identify potential hazardous contamination sites on or near the project site. The project site is not listed in the Envirofacts database as a known hazardous material contamination site. Further, no sites within ¼-mile of the site have the potential to create a hazardous condition on the project site or in groundwater beneath the site (U.S. EPA 2004). As such, these issues will not be addressed further in this Draft EIR.

The project site has been used for prison-related uses since at least 1906 when a slaughter house was constructed in the southern portion of the project site (see Section 4.5, Cultural Resources). Currently, the site is occupied by minimum security housing facilities, storage buildings, an abandoned wastewater treatment plant (WWTP) and detergent plant, recycling and salvage facilities, maintenance and storage areas, and prison employee residences (refer to Exhibit 4.5-2). Most of the onsite buildings were constructed before 1978, and are likely to contain asbestos and lead-based paint. Several past and current activities (i.e., detergent plant, landscaping, salvage, wastewater treatment) have resulted in the storage, handling, and transport of a variety of hazardous materials to and from the project site. These materials included fuels, pesticides, paints, polychlorinated biphenals (PCBs) (used in light ballasts and transformers), soda ash, metals, and several volatile and semi-volatile organic compounds.

PHASE I AND II SITE ASSESSMENTS

The purpose of the Phase I Site Assessment (Phase I) was to identify general environmental factors or land uses that could have created an adverse environmental condition in soil or groundwater beneath the site. Based on the results of the Phase I, areas on the project site where adverse environmental conditions could have occurred, were identified and recommendations were made for future investigation and/or remediation.

The purpose of the Phase II Site Assessment (Phase II) was to focus an environmental subsurface investigation, sampling, and testing program on the areas of the project site that were identified in the Phase I study as having an elevated potential for soil and/or groundwater contamination. Areas identified for additional investigation included Dairy Hill, scrap metal and recycling area, abandoned detergent plant, abandoned WWTP, landscape department, maintenance yard, and the onsite drainage ditch. Soil and groundwater samples were collected in several areas of the project site and were analyzed for the

presence of metals, petroleum hydrocarbons, volatile organic compounds, semi-volatile organic compounds, and pesticides.

The Phase II concluded that, with the exception of soils located near the detergent plant, wastewater treatment plant (WWTP), and scrap metal and recycling area, the low concentrations of metals, pesticides, and petroleum hydrocarbons detected in onsite soils did not exceed any regulatory thresholds. Therefore, additional investigation of these soils would not be required. Soils sampled in the vicinity of the detergent plant and recycling area contained concentrations of petroleum hydrocarbons that exceeded regulatory thresholds. Additional analysis of these soils was recommended. Further, although pesticide concentrations in soil near the landscaping area were below regulatory thresholds, the concentrations were elevated such that additional analysis of these soils was recommended (Kleinfelder 1990b).

The following provides a description of the site conditions in the areas where soil and groundwater sampling occurred.

Dairy Hill

A storage shed is located on top of Dairy Hill near the northern end of the hill. This shed was reported to have previously stored toxic substances including PCBs and petroleum hydrocarbons. Currently this shed provides storage for miscellaneous paint containers and petroleum products (i.e., fuel and lubricants) (Kleinfelder 2004). Based on the results of the Phase II, no PCBs and only minor concentrations of pesticide compounds were detected in the surface soils near this shed. The pesticide concentrations did not exceed regulatory thresholds. No additional investigation was recommended.

Scrap Metal and Recycling Area

The scrap metal and recycling area is located on the southwest corner of the site at the bottom of Dairy Hill. This area was previously reported to have stored 400 55-gallon storage drums with unknown contents (Kleinfelder 1990b). This area is covered with a concrete slab and currently provides storage for paper recycling bins, metal bins, and various scrap metal parts. The Phase II investigation indicated that elevated concentrations of oil, grease, and petroleum hydrocarbons were detected in the surface soils near the scrap metal and recycling area. Concentrations of these constituents ranged from 10 to 300 parts per million (ppm), which exceeded regulatory requirements. The Phase II recommended additional investigation of soils in this area to characterize the horizontal and vertical extent of contamination (Kleinfelder 1990b).

Detergent Plant

The abandoned detergent plant is located in southern portion of the project site near the center of the southern boundary. This facility was in operation from 1970 to 1989**.** The plant produced items including concrete cleaner, bleach, laundry detergent, hand soap, and other cleaning agents and contained a butane storage area (used to fuel fork lifts), and dry and liquid chemical storage areas. Chemicals stored at the detergent plant included soda ash, ether products, and ammonia products. The results of the Phase II indicated the presence of low concentrations of semi-volatile organic compounds and high concentrations of petroleum hydrocarbons (i.e., 1,000 ppm) in soils near this facility. The concentrations of the semi-volatile organic compounds did not exceed any regulatory thresholds; however, the petroleum hydrocarbon concentrations exceeded regulatory thresholds. The Phase II recommended additional investigation of soils in this area to characterize the horizontal and vertical extent of contamination (Kleinfelder 1990b).

Wastewater Treatment Plant

The abandoned WWTP is located in the southeastern portion of the project site adjacent and east of the detergent plant. This facility was in operation from 1951 to 1986 and included a pump house, laboratory, clarifier, anaerobic digester, filter, and 6 sludge drying beds. The results of the Phase II indicated that low concentrations of organochlorine pesticides and petroleum hydrocarbons were detected in the sludge drying beds. The detected pesticide concentrations were below regulatory thresholds; however, petroleum hydrocarbon concentrations exceeded regulatory thresholds. The horizontal extent of soil contamination in the sludge drying bed appears to be limited to the concrete containment walls. A groundwater monitoring well located adjacent to the sludge ponds was sampled and no hazardous constituents were detected. The Phase II recommended additional investigation of soils near the sludge drying beds to characterize the horizontal and vertical extent of contamination (Kleinfelder 1990b).

Landscape Area

The landscape area, located north of the WWTP, consists of an office, trailer storage area, three greenhouses and an engine repair shop. Agricultural chemicals, fertilizers, and pesticides are stored in this area. Before 1990, oil containers, empty gasoline cans, solvents, and aerosol cans were stored in the small engine repair shop. Based on the results of the Phase II, low concentrations of organochlorine pesticides were detected surface soils in this area. Although, pesticide concentrations detected were below regulatory thresholds, additional investigation of these soils was recommended to characterize the horizontal and vertical extent of soil contamination (Kleinfelder 1990b).

Maintenance Yard

A maintenance yard is located in the center of the project site and includes maintenance buildings, offices, storage trailers, welding, electrical, wood, and paint shops along with other storage areas. Based on the results of the Phase II, low concentrations of metals were detected in soils in this area. The metals concentrations were below regulatory thresholds and no additional investigation was recommended (Kleinfelder 1990b).

Drainage Ditch

The drainage ditch located between the detergent plant and the former WWTP currently drains onsite stormwater and conveys it to San Francisco Bay for discharge. Past uses of the site may have resulted in the discharge of contaminants to this ditch, which could have resulted in groundwater contamination. Based on groundwater sampling results, only trace amounts of ethylbenzene were detected in groundwater near this ditch. These concentrations were below regulatory thresholds. No additional investigation was recommended (Kleinfelder 1990b).

Groundwater Quality

Two monitoring wells were installed near the sludge drying beds and the detergent plant to identify the presence of groundwater contamination. Laboratory analysis of groundwater samples collected from the monitoring wells did not identify concentrations of petroleum hydrocarbons, surfactants, semi-volatile organic compounds, or volatile organic compounds that would indicate the presence of groundwater contamination (Kleinfelder 1990b).

AGENCY DATABASE RECORDS

The Office of Solid Waste (OSW) regulates solid and hazardous waste created by industrial and manufacturing processes under the Resource Conservation and Recovery Act (RCRA). The RCRA list identifies generators and transporters of hazardous waste. The SQSP Plant Operations Department is listed on the RCRA database as a large quantity generator of hazardous wastes. No spills or violations have been reported (USEPA 2004). Large quantity generators, produce more than 2,200 lbs (1,000 kg) of hazardous waste or more than 2.2 lbs (1 kg) of acute hazardous waste each month. The SQSP hauls its hazardous waste offsite and disposes the waste at an appropriately designated offsite disposal facility.

4.7.2 REGULATORY BACKGROUND

Hazardous materials handling is subject to numerous laws and regulations at all levels of government. Table 4.7-1 lists the authority of federal, state, and local regulatory agencies that oversee hazardous materials handling and management. A summary of the most pertinent regulations is provided below.

HAZARDOUS MATERIALS MANAGEMENT

Federal and state laws require detailed planning to ensure that hazardous materials are properly handled, used, stored and disposed of, and if hazardous materials are accidentally released, to prevent or to mitigate injury to health or the environment. The Federal Emergency Planning and Community Right to Know Act (EPCRA) of 1986 impose hazardous materials planning requirements to help protect local communities in the event of accidental release.

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires preparation of Hazardous Materials Business Plans and disclosure of hazardous materials inventories. A Business Plan includes an inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. Local agencies, including the Environmental Health Services Division of the Marin County Community Development Agency and the SQSP Fire Station manage laws and regulations.

WORKER SAFETY

The California Occupational Safety and Health Administration (Cal-OSHA) and the Federal Occupational Safety and Health Administration (Fed-OSHA) are the agencies responsible for assuring worker safety in the handling and use of chemicals in compliance with the Occupational Safety and Health Act of 1970, Fed-OSHA has adopted numerous regulations pertaining to worker safety, contained in the Code of Federal Regulations Title 29 (29 CFR). These regulations set standards for safe workplaces and work practices, including standards relating to hazardous material handling. Cal-OSHA assumes primary responsibility for developing and enforcing state workplace regulations. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in 29 CFR. Cal-OSHA standards are generally more stringent than federal regulations.

Table 4.7-1 Summary of Hazardous Materials Regulatory Authority		
Regulatory Agency	**Jurisdiction**	**Authority**
Federal		
Environmental Protection Agency (EPA)	Federal	Federal Water Pollution Control Act Clean Air Act Resource Conservation & Recovery Act Federal Emergency Planning and Community Right to Know Act (EPCRA) Comprehensive Environmental Response, Compensation & Liability Act Superfund Amendments & Reauthorization Act Federal Insecticide, Fungicide & Rodenticide Act
Department of Transportation (DOT)	Federal	Hazardous Materials Transportation Act
Occupation Safety and Health Administration (OSHA)	Federal	Occupational Safety & Health Act
State		
Department of Toxic Substances Control (DTSC)	Statewide	Health and Safety Code CCR Titles 17, 19, & 22
Department of Industrial Relations (Cal OSHA)	Statewide	California Occupational Safety & Health Act
Department of Transportation (Caltrans)	Statewide	Hazardous materials transportation
Public Utilities Commission (PUC)	Statewide	Natural gas pipelines; General Order No. 112-D
Office of Emergency Services (OES)	Statewide	Hazardous Materials Release/Response Plans Acutely Hazardous Materials Law
State Fire Marshall	Statewide	Uniform Fire Code, CCR Title 19 Hazardous liquid pipelines
Health & Welfare Agency	Statewide	Safe Drinking Water & Toxic Enforcement Act
Integrated Waste Management Board	Statewide	AB 939
State Water Resources Control Board (SWRCB)	Statewide	Porter-Cologne Water Quality Control Act
San Francisco Bay Regional Water Quality Control Board (RWQCB)	Regional	NPDES permit requirements
Bay Area Air Quality Management District (BAAQMD)	Regional	California Clean Air Act, BAAQMD Regulations
Local		
Environmental Health Services Division of the Community Development Agency	County	Hazardous materials disclosure permit issuance and inspections
San Quentin State Prison Fire Station	SQSP	Emergency response
Sources: EDAW 2004		

Cal-OSHA's regulations for the use of hazardous materials in the workplace, as detailed in CCR Title 8 include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal-OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of

health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Material Safety Data Sheets (MSDSs) be available to employees and that employee information and training programs be documented.

EMERGENCY RESPONSE TO HAZARDOUS MATERIALS INCIDENTS

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is managed by the State Office of Emergency Services (OES), which coordinates the responses of other agencies including the Cal-EPA, the California Highway Patrol (CHP), California Department of Fish and Game, San Francisco Bay Regional Water Quality Control Board, Marin County Community Development Agency, and SQSP Fire Station.

HAZARDOUS MATERIALS TRANSPORT

The U.S. Department of Transportation regulates hazardous materials transportation between states. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the CHP and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads.

HAZARDOUS WASTE MANAGEMENT

The California DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the Federal Resource Conservation and Recovery Act (RCRA) and the State Hazardous Waste Control Law. Both laws impose comprehensive regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

4.7.3 ENVIRONMENTAL IMPACTS OF THE PROJECT

THRESHOLDS OF SIGNIFICANCE

The project would result in significant hazardous materials impacts if it would:

- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; or
- result in safety hazards to people residing or working in the project area.

CREATE A SAFETY HAZARD TO CONSTRUCTION WORKERS

The Phase II report identified areas on the project site where past operations have resulted in elevated concentrations of hazardous constituents (i.e., petroleum hydrocarbons and pesticides) in surface soils. Further asbestos, lead-based paint, and poly-chlorinated biphenyls (PCBs) are also likely to be present in onsite buildings because of their age. Elevated petroleum hydrocarbon contamination was found at concentrations that exceed current regulatory thresholds near the abandoned detergent plant, abandoned WWTP, and scrap metal and recycling area. Elevated pesticide concentrations were detected near the landscaping area. During construction activities (i.e., demolition, grading, trenching, excavation, soil hauling and excavation) construction workers could come in contact with and be exposed to hazardous materials present in onsite buildings and soils and groundwater. Further, the presence of contamination in onsite soils could create a significant environmental or health hazard if left in place.

Because construction workers could be exposed to hazardous materials present onsite during construction activities (i.e., demolition grading, trenching, excavation), and contamination in onsite soils and groundwater could create a significant environmental or health hazard if left in place, this would be a potentially significant hazard impact (Impact 4.7-a).

CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT

During construction, minor use, storage and handling of hazardous substances, including fuel and asphalt, would be expected. Further, operations at SQSP would require the routine handling of some hazardous materials including fuel, paints, and solvents. Construction workers and SQSP personnel would handle hazardous materials in accordance with all applicable local, state and federal regulations, including Cal-OSHA requirements, and manufacturers' instructions.

Because construction contractors and SQSP personnel would be required to comply with all laws pertaining to the handling, transport, and storage of hazardous materials during construction and operation of the CIC, there would be a less-than-significant impact related to hazards to the public or the environment (Impact 4.7-b).

4.7.4 PROPOSED MITIGATION MEASURES

LESS-THAN-SIGNIFICANT IMPACTS

The following impact was identified as less-than-significant and, therefore no mitigation is required.

4.7-b: Create a Significant Hazard to the Public or the Environment

SIGNIFICANT IMPACTS THAT CAN BE MITIGATED TO A LESS-THAN-SIGNIFICANT LEVEL

The following impact was identified as potentially significant. Mitigation is available to reduce this impact to a less-than-significant level and is recommended below:

4.7-a: Create a Safety Hazard to Construction Workers

- To avoid health risks to construction workers, the contractor will prepare a site Health and Safety Plan. This plan will outline measures that will be employed to protect construction workers and the public from exposure to hazardous materials during remediation, demolition, and construction activities. These measures could include, but would not be limited to posting notices, limiting access to the site, air monitoring, watering, and installation of wind fences. Development contractors will be required to comply with state health and safety standards for all demolition work. If necessary, this will include compliance with OSHA and Cal-OSHA requirements regarding exposure to asbestos and lead-based paint.

- To reduce or eliminate health and environmental risks associated with elevated concentrations of hazardous materials in onsite soils, CDC will implement the following measures:

  - **Detergent Plant.** Before site grading and excavation of soils in the vicinity of the detergent plant, additional soil samples will be collected and analyzed for petroleum hydrocarbon content. If laboratory analysis indicates elevated levels of petroleum hydrocarbons, the findings will be forwarded to the RWQCB for their review. If the RWQCB indicates that the soils should be handled as a hazardous waste, excavated soils will be stockpiled on plastic

sheeting. Further remediation, if necessary, and disposal of the soils will be conducted in accordance with State and federal guidelines.

- **Recycling and Salvage Program (RASP).** Before site grading and excavation of soils, soils in the scrap metal and recycling area will be evaluated for unusual odors, visible discoloration, or other indications of soil contamination. If soils suspected of being contaminated are encountered, they will be stockpiled on plastic sheeting. Stockpiled soils will be sampled in accordance with RWQCB guidelines, and the findings will be forwarded to the RWQCB for review. Further remediation, if necessary, and disposal of the soils will be conducted in accordance with State and federal guidelines.

- **Wastewater Treatment Plant.** Soils in each of the sludge ponds at the former WWTP will be excavated and stockpiled separately on plastic sheeting. The stockpiled soil will be sampled in accordance with RWQCB guidelines and analyzed for metals (total and soluble) using the California Waste Extraction Method, and petroleum hydrocarbons. If laboratory results indicate that the stockpiled material is considered to be a hazardous waste, the findings will be forwarded to the RWQCB for their review. Further remediation, if necessary, and disposal of the soils will be conducted in accordance with State and federal guidelines.

- CDC will prepare a site plan that identifies necessary remediation activities appropriate for proposed land uses, including excavation and removal of onsite contaminated soils, and redistribution of clean fill material on the project site. The plan will include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site. In the event that contaminated groundwater is encountered during site excavation activities, the contractor will report the contamination to appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge in the sanitary sewer system. The development contractors will be required to comply with the plan and applicable local, state, and federal laws and the requirements of the Central Marin Sanitary Agency for dewatering discharge. The plan will outline measures for specific handling and reporting procedures for hazardous materials, and disposal of hazardous materials removed from the site at an appropriate offsite disposal facility. Analysis and mitigation measures addressing the potential release of hazardous materials into the atmosphere are addressed in Section 4.2, Air Quality, of this Draft EIR.